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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,764	12/19/2001	Thomas F. Look	57378US002	3744

7590 11/05/2002

Attention: Rudolph P. Hofmann Jr.
Office of Intellectual Property Counsel
3M Innovative Properties Company
PO Box 33427
St. Paul, MN 55133-3427

EXAMINER

LABAZE, EDWYN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,764

Applicant(s)

LOOK, THOMAS F.

Examiner

EDWYN LABAZE

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being unpatented by Brantli et al. (U.S. 5,608,391).

Re claim 1: Brantli et al. discloses an electronic license plate architecture, which includes a retroreflective article or sheeting 28 (col.5, line 7) having an optical article (col.5, lines 8+) and a reflective or metal layer (col.5, line 55-56); wherein the optical article includes an optical surface (col.5, line 8), an opposite rear surface (col.5, line 64), and a structured surface coextensive with one of the optical surface and the rear surface (col.); wherein the reflective layer is deposited on at least a portion of the structured surface of the optical article (see figs. #2 and 8), a radio frequency-responsive element including an antenna 30 (col.5, line 13) and an integrated circuit 36 (col.7, line 27), the RF circuit having information storage and transmission capabilities adapted to enable an interrogation system to obtain information from the radio frequency-responsive element (col.7, lines 48+); wherein the radio frequency-responsive element is coupled to one of the optical surface or rear surface of the retroreflective article (see fig. # 3).

Re claim 2: Brantli et al. teaches a system wherein the reflective layer includes a non-contiguous metal layer (col.6, lines 32+).

Art Unit: 2876

Re claim 3: Brantli et al. discloses a system, wherein the reflective layer is a metallized ink or coating (col.5, lines 52-56).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brantli et al. (U.S. 5,608,391) in view of Brennan et al. (U.S. 5,844,523).

The teachings of Brantli et al. have been discussed above.

Brantli et al. fails to disclose a tag, wherein the reflective layer has metal content of about 10% to 14% by volume and the metal is silver.

Brennan et al. teaches an electrical and electromagnetic apparatuses using laminated structures having thermoplastic elastomeric and conductive layers, which includes metallic silver layer (col.11, lines 19-27) and 5% to about 60% by volume (col.10, line 16; and col.17, line 30).

In view of Brennan et al.'s teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to silver metal ink, spray or coating laminated on the reflected layer(s) for better and brighter reflections and color diffusions. Furthermore, a metal content of 10% to 14% by volume is designed to reduce cost, control how incident light is directed toward the light source, and increase the reflectivity of the article. Therefore such modification would have been an obvious extension as taught by Brantli et al. and an obvious expedient.

5. Claims 6- 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brantli et al. (U.S. 5,608,391) in view of Brantli et al. (U.S. 5,621,571)

Re claims 6 and 9: the teachings of Brantli et al. (5,608,391) have been discussed above.

Brantli et al. (U.S. 5,608,391) fails to disclose a system, wherein the optical article includes glass microspheres embedded in a spacing resin.

Brantli et al. (U.S. 5,621,571) teaches an integrated retroreflective electronic display, which includes glass microspheres 32 (col.5, lines 34+).

In view of Brantli et al.'s (U.S. 5,621,571) teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ glass microsphere as a good source of reflective material and a splitter when impinged by the a light source wherein a portion of the light is being retroreflected back toward the light source and one portion transmitted as so to reach the substrate. Furthermore, the glass micosphere structure reflects a much brighter signal, which makes it possible to distinguish the background bead from any hidden source, therefore such modification would have been an obvious extension of the teaching of Brantli et al. (U.S. 5,608,391).

Re claim 7: Brantli teaches an electronic license plate, wherein the reflective layer is deposited directly on least portions of the spacing resin or epoxy (col.9, lines 14+).

Re claim 8: Brantli et al. discloses an apparatus, which includes security indicia disposed on the article (see fig.# 9a).

Art Unit: 2876

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

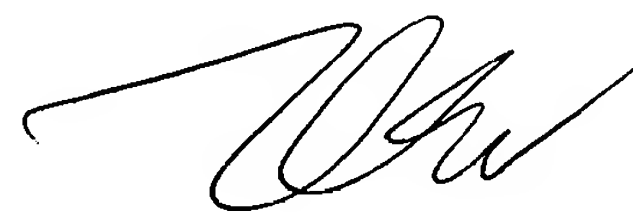
Caperna et al. (U.S. 6,087,940) discloses an article surveillance device and method for forming.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

el
Edwyn Labaze
Patent Examiner
Art Unit 2876
October 23, 2002



**THIEN M. LE
PRIMARY EXAMINER**